

REMARKS

Claims 1-6 are pending in this application. By this Amendment, claim 2 is amended to correct a typographical error. In addition, the title of the present application is amended.

No new matter is added by this Amendment.

Applicant appreciates the courtesies shown to Applicant's representative by Examiner Tugbang in the July 19, 2004 interview. Applicant's separate record of the substance of the interview is incorporated into the following remarks.

In view of the foregoing amendments and the following remarks, reconsideration of this application is respectfully requested.

I. Objections to the Specification and Claims

The title was objected to for allegedly not being descriptive. The title has been amended in accordance with the Patent Office's suggestion.

Claim 2 was objected to for allegedly being awkwardly worded. Claim 2 has been amended as suggested by the Patent Office. As acknowledged by the Examiner during the July 19, 2004 interview, the objection to claim 2 is overcome.

For the foregoing reasons, reconsideration and withdrawal of these objections to the specification and claims are respectfully requested.

II. Rejection Under 35 U.S.C. §102(b)

Claims 2-5 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 4,965,928 (Verge). This rejection is respectfully traversed.

Verge describes a harness assembling system 10 including at least a first region 11 for certain preliminary functions and a second region 12 throughout which the harness assembling function occurs. A third testing region 13 might also be included. See col. 3, lines 14-19. The terminals 6 on the ends of the respective wires 4 are of a female-type, and are adapted to receive and be connected to the male, spade-type terminals 71 of bus connector

70. See col. 10, lines 24-27. When the completed wire harness 8 appears at the downstream end 26 of conveyor 23, an operator 15 removes the harness from the conveyor and transports it to a suitable test board 43 in testing region 13 where it is tested for electrical accuracy and integrity. See col. 5, lines 23-30.

According to the Patent Office, Verge allegedly shows movable elements 4 in a "waiting position" with the male and female terminals being apart and then, subsequently, the male and female terminals are connected to one another. The Patent Office further alleges that the conductive portions become conductive to the extent that an electrical test is performed. The Applicant respectfully disagrees.

In the present application, a movable element 15 is disposed in each of female terminals 9 of a connector 8, as shown in Figs. 1 and 2. When a male terminal 7 is inserted into the female terminal 9, the movable element 15 is pressed (pushed up by the male terminal 7) so as to be moved from a waiting position in the connector 8 as shown in Fig. 1, to the outside of the connector 8 as shown in Fig. 2 or to a conduction position. See page 12, lines 6-12 of the present specification.

The movable element 15 is configured by integrating by adhesion or the like an electrical insulator 15a which is to be in contact with the male terminal 7, and which is the lower half of the element, and a conductor 15b which is the upper half. At the conduction position, the conductors 15b are in contact with conductive portions 17 of a conduction test device 16 which is shown in Fig. 3 and subsequent figures, thereby establishing a conductive condition. See page 12, lines 14-22 of the present specification.

Nowhere does Verge describe or suggest movable elements disposed respectively in at least all to-be-connected female terminals into which the male terminals are to be respectively inserted in a correct connection condition, in a state where each of the movable elements is

moved from a waiting position to a conduction position by an insertion operation of corresponding ones of the male terminals.

Verge does not describe nor suggest a movable element that is moved from a waiting position by an insertion operation of corresponding ones of the male terminals. Rather, Verge shows female terminals 6 fixed on the ends of the respective wires 4. The wires 4 are not a movable element. In fact, the wires 4 and female terminals 6 are held stationary by a jig 75. According to Verge, the jig 75 includes several longitudinally extending slots 83 in the upper surface thereof for receiving the respective wires 4. More specifically, the grooves or slots 83 define sidewalls 84 which are undercut near their forward ends to provide seats 85 for the terminals 6. The undercut in the walls 84 is such that the terminal seats 85 contain the terminals 6 captive in both a vertical and lateral direction when inserted and seated therein as depicted in Figs. 8 and 9. See col. 11, lines 11-19 of Verge.

During the Examiner interview on July 19, 2004, the Examiner again referenced Figure 9 and col. 10, lines 24-27 of Verge when alleging that Verge must disclose movable elements in order for a connection to be made. However, the movable elements of Verge, if any, correspond to male terminals 71 only and not to female wires 4, which as discussed above, are held stationery. In Verge, the female wires 4 remain stationery at least with respect to the terminals 6. In contrast, in the claims of the present invention, the movable elements 15 are located in, and move with respect to, the female terminals 9. In other words, Verge fails to teach or suggest movable elements disposed respectively in at least all to-be-connected female terminals into which said male terminals are to be respectively inserted in a correct connection condition, in a state where each of said movable elements is moved from a waiting position to a conduction position by an insertion operation of corresponding one of said male terminals, as recited in claim 2.

Moreover, nowhere does Verge describe or suggest a conduction test device including conductive portions, wherein when the movable elements are moved to the conduction position, the conductive portions are in contact with the movable elements, respectively, and when all of the movable elements in the to-be-connected female terminals are moved to the conduction positions, the conductive portions become conductive.

In embodiments of the present invention, the conductive portions 17 of the conduction test device 16 are arranged so as to attain a conductive condition when the adjacent portions are short-circuited by the conductors 15b of the movable elements 15. In the correct connection condition, as shown in Fig. 4, the conductors 15b of the movable elements 15 are placed at respective conductive portion short circuit positions, and hence the conductive condition is detected. See page 14, lines 1-8 of the present specification.

As described above, Verge does not describe or suggest a movable element. Thus, Verge does not describe or suggest a conduction test device arranged so as to attain a conductive condition when the adjacent portions are short-circuited by a movable element. Rather, Verge describes an assembling system whereby an operator removes the harness from the conveyor and transports it to a suitable test board 43 in the testing region 13.

For the foregoing reasons, Applicant respectfully submits that Verge does not anticipate the subject matter of claim 2 or claims dependent therefrom.

Reconsideration and withdrawal of this rejection are respectfully requested.

III. Rejection Under 35 U.S.C. §103(a)

Claim 6 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Verge. This rejection is also respectfully traversed.

As described above, Verge fails to describe or suggest the recited elements of claim 2. The Patent Office has alleged that it would have been obvious to one of ordinary skill in the art to have modified the apparatus of Verge by disposing the female terminals in connectors

of a printed circuit board of an electronic control unit for the allegedly well-known benefits of achieving a certain degree of electrical circuitry. However, even if it would have been obvious to dispose the female terminals in connectors of a printed circuit board to an electronic control unit as alleged by the Patent Office, the present invention still would not have been achieved because this allegation fails to remedy the deficiencies of Verge as described above.

For the foregoing reasons, reconsideration and withdrawal of this rejection are respectfully requested.

IV. Rejoinder

Applicant respectfully submits that claim 1 should be rejoined and allowed upon allowance of claim 2.

Claim 1 is directed to a method of utilizing the product of claim 2 and includes all the material limitations of claim 2. Accordingly, rejoinder of claim 1 is appropriate.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-6 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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